

ABSTRACT

The junction temperature of an LED is determined. This result is used to determine an initial brightness value of the LED. The initial brightness value is derated by a long-term degradation amount that is determined using a stored
5 indication of the lifetime total on time. The derated brightness value is used to determine an exposure for a capture system. The junction temperature is determined by measuring the ambient temperature and then keeping a running junction temperature determined from the on and off times.